

B301A

CPS OPERATIONAL PHILOSOPHY

I. Airplane Preparation

a. The airplane will be pre-conditioned to accept installation of the following equipment within 8 hours at a remote base.

25X1D0g

1. [REDACTED] and Flight Data Instrumentation
2. Communications Subsystem and Antenna
3. Navigation and Flight Sensors (FLTV, IR, Omega, radar altimeter, etc.)
4. Payload
5. Auxiliary Power Unit
6. Other equipment as applicable

b. The above equipment will be shipped or hand carried to the remote base for installation in the airplane. The visual appearance of the airplane will be kept as close to that of a conventional airplane of the same type as possible.

c. Pre-mission checkout will be performed with a safety pilot and the satellite link (and LOS link, if used) will be verified ^{immediately} prior to the unmanned mission.

II. Missions

- a. Pre-mission planning will be accomplished using topographical maps, intelligence data on area defense environment, and prior reconnaissance. The course and altitude profile will be pre-planned to minimize detection by visual or radar observers, or radio listeners. The emphasis is on avoiding attention by making the airplane appear commonplace, rather than by providing a low probability of detection by reducing its visibility. The airplane is to blend into the normal air traffic patterns as unobtrusively as possible. Low altitude operation will be used within those restraints as much as possible to minimize detection by radar.
- b. Short burst, encrypted transmission will be used to minimize RF signal detection. On-board navigation will be used to navigate between checkpoints, with TV or IR updates. Antenna patterns and modulation equipment shall be designed to minimize detection by ground receivers. Relay satellite will be the primary means of communication. Command channels that are obscured by normal traffic flow shall be used if feasible (e.g., insertion into routine message distribution systems).
- ~~c.~~ Voice transmission via the satellite and coupled to the VHF airplane system will be used to facilitate checkout

by the safety pilot, handover between the LOS and OTH station, and to implement deceptive transmissions from the RPV when entering controlled airspace. [Voice via the satellite shall be digitized and encrypted or masked by some technique to avoid detection.]

- i. Remote, seldom used airstrips (e.g., emergency strips) will be used for takeoff and landing the RPV. LOS stations will be contained in a small van truck. Safety pilot will fly to airstrip, orient airplane for take-off, and then disembark. If a LOS station is provided he will operate the station for take-off, then may drive away until time for vehicle return. If remote take-off and land capability via satellite is provided, he will be picked up and wait for airplane return. Talar may be used to facilitate landing. The LOS system will probably utilize a standard forward looking TV and an instrument panel TV in the RPV.

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Release :
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GTS STUDY SCHEDULE

WEEKS	DEC					JAN					FEB				MAR	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	27	4	11	18	25	1	8	15	22	29	5	12	19	26	5	12
PROGRAM MILESTONES	▽						MID-TERM BRIEFING ▽		▽			FINAL BRIEFING ▽		FINAL REPORT ▽		
INTERFACE ITEMS		SUB CONTR NEG ▽	SCENARIO ESTAB △	PREL DATA RATE REQMTS △		25X1A5a2	PREL PERF DATA ▽	FINAL DATA RATE REQMTS ▽			COMM S/S INSTALL REQMTS TO 25X1A5a2 ▽					
COMMUNICATIONS SUBCONTRACT		CONTR GO-AHEAD ▽	SENSOR + A/P DATA RECEIVED △	P/L DEFINED SCENARIO RECEIVED 25X1A5a2 △		COORD BRIEFING 25X1A5a2 ▽	COORD MTG WITH 25X1A5a2 ▽	MID-TERM BRIEF ▽		FINAL REPORT OUTLINE AND FOR A/T 25X1A5a2 △	TBC/SC BRIEFING COORD 25X1A5a2 △		FINAL REPORT ▽			
FLT V SIMULATION		CAMERA INSTALL REQMTS ▽	FLIGHT PLAN △	PREL DATA REQMTS REC'D △		FLIGHTS COMPL △		FINAL DATA RATE REQMTS △	REPORT FORMAT & OUTLINE △		COORD MTG △					
B/R APPLICATIONS		REVIEW A/P DATA ▽	CAMERA + IR INSTALLED △			SIMULATION SET-UP PKG CONCEPT DEV ▽		FL DATA EVAL COMPL △			DWGS COMPL ▽	DESCRIPTION COMPL ▽				
SENSOR REQUIREMENTS			PREL REQMTS ▽					FINAL REQMTS ▽								
NAVIGATION SENSORS				REVIEW "A" STUDIES ▽		SENSOR MATRIX ▽		COST/PERF TRADES ▽		NAV SENSOR SEL ▽		DESCRIPT COMPL ▽				
CHECKPOINT SENSORS				REVIEW "A" STUDIES ▽		SENSOR MATRIX ▽		COST/PERF TRADES ▽		CP SENSOR SELECTED ▽		DESCRIPT COMPL ▽				
VEHICLE EVALUATION		REVIEW A/P DATA ▽						RANGE, P/L PERF/CHAR ▽		PERF CONF ANAL EST ▽		DESCRIPT COMPL ▽				
SYSTEM EFFECTIVENESS				P/L DEF ▽				P/L DATA LINK REQMTS ▽		VEH RETURN CONCEPTS ▽		DESCRIPTION COMPL ▽				

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